

## **Type material of Isopoda (Crustacea: Oniscidea, Anthuridea) from the collections of the National Museum of Natural History in Sofia**

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The initial reports and collections of terrestrial Isopoda in Bulgaria are the result of intensive collecting activity of the Academician I. Buresch and his collaborators in the early twenties of this century. Based on their materials are the first publications on terrestrial Isopoda from Bulgaria by the famous zoologists VERHOEFF (1926, 1929, 1936), STROUHAL (1939) and FRANKENBERGER (1941). Parts of these collections remained in the museums of Vienna and Prague. Sometime later on the basis of materials, collected by Bulgarian zoologists and biospeleologists (P. Beron, V. Gueorguiev, A. Popov, H. Delchev, S. Andreev and others) VANDEL (1965, 1967) published a number of new species for Bulgaria, the type materials of which are to be found in Prof. A. Vandel's collection in Toulouse. They were followed by publications by ANDREEV (1970, 1972, 1984, 1985a, 1985b, 1986a, 1986b, 1997), ANDREEV & TABACARU (1972), including descriptions of 18 new species.

As a result of a long-standing collecting activity of Dr. P. Beron in South, Central and North America, Africa, New Guinea, Indonesia, China, Korea, Vietnam, Nepal, Burma, Thailand, Sri Lanka and other countries, important material of terrestrial Isopoda was collected, among which there were many new species. Most of these data were published by F. FERRARA and S. TAITI (1981, 1984, 1986, 1987, 1988, 1995). The material from China was determined by KWON & TAITI (1993). The contributions of MANICASTRI & TAITI (1987, 1988) and of DALENS (1990) should be noted too.

At present the collections of Isopoda in the National Museum of Natural History comprise 291 species, including holotypes and types of 55 species from 9 families from the suborder Oniscidea and two species from the suborder Anthuridea. The subject of this report is the type material, information on countries, locations, collectors, authors of the new descriptions.

## SUBORDER ONISCIDEA

### Family Styloniscidae

*Cordioniscus antiparosi* Andreev, 1985. Holotype ♂, Paratypes 42 ♂♂, 44 ♀♀, Greece, Antiparos Island, Cave of Antiparos, 22.12.1982, leg. P. Beron, S. Andreev.

*Cordioniscus bulgaricus* Andreev, 1986. Holotype ♂, Paratypes 2 ♂♂, 3 ♀♀, Bulgaria, Blagoevgrad District, Stanke Lisichkovo Village (now Logodash), Lisitcha dupka Cave, 02.04.1984, 3 ♂♂, 3 ♀♀ leg. P. Beron, S. Andreev; 11 ♀♀, Bulgaria, Blagoevgrad District, Stanke Lisitchkovo Village (now Logodash), Lisitcha dupka Cave, 27.03.1981, leg. P. Beron.

*Cordioniscus kalimnosi* Andreev, 1987. Holotype ♂, Paratypes 14 ♂♂, 21 ♀♀, 8 juvs. Greece, Kalimnos Island, Skalia Cave, 04.05.1987. leg. P. Beron.

*Cordioniscus kitnosi* Andreev, 1988. Holotype 1 ♂, Paratypes 3 ♂♂, 6 ♀♀, Greece, Kithnos Island, Dryopis Village, Katafyngi Cave, 16.05.1964, leg. P. Beron.

### Family Trichoniscidae

*Bureschia bulgarica* Verhoeff, 1926. Holotype 1 ♂, Paratypes 1 ♀, 1 juv. Bulgaria, Sofia District, Lakatnik Village, Temnata dupka Cave, 01.03.1926, leg. I. Buresch.

*Alpioniscus matsakisi* Andreev, 1984. Holotype ♂, Paratypes 10 ♂♂, 4 ♀♀, Greece, Evia Island, Tharunia Village, Skotini Cave, 26.12.1982, leg. P. Beron, S. Andreev, J. Matsakis.

*Alpioniscus thracicus* Andreev, 1986. Holotype ♂, Paratypes 3 ♂♂, 3 ♀♀, Greece, Rhodopi District, Maronia Village, Maronia Cave. 01.10.1983, leg. P. Beron, Beshkov.

*Hyloniscus crassicornis* Verhoeff, 1926. Holotype ♂, Paratypes 5 ♀♀, Bulgaria, Lovetch District, Devetaki Village, Devetashka peshtera Cave, 17.09.1924, leg. I. Buresch.

*Hyloniscus pugionum* Verhoeff, 1926. Holotype ♂, Paratypes 2 ♂♂, 4 ♀♀, Bulgaria, Sliven District, Kotel, Niritz Cave, 30.09.1924, leg. I. Buresch.

*Oritoniscus beroni* Ferrara et Taiti, 1984. Holotype ♂, Paratypes 4 ♀♀, . Italy, Sardinia, prov. Nuoro, Ulassai, 20.10.1980, leg. P. Beron.

*Balkanoniscus corniculatus* Verhoeff, 1926. Holotype ♂, Paratypes 8 ♂♂, 4 ♀♀. Bulgaria, Lovetch District, Karlukovo Village, Haidushka dupka Cave, 09.09.1923, leg. I. Buresch.

*Trichoniscus beroni* Andreev, 1984. Holotype ♂, Paratypes 2 ♀♀, Bulgaria, Burgas District, Malko Tarnovo, Bratanovska peshtera Cave, 19.06.1980, leg. P. Beron, S. Andreev.

*Trichoniscus beschkovi* Andreev, 1986. Holotype ♂, Paratypes 3 ♂♂, 2 ♀♀ . Greece, Thesaloniki District, Petralona Village, Spilya Nycteridon Cave, 10.10.1974, leg. P. Beron

*Trichoniscus bulgaricus* Andreev, 1970. Holotype ♂, Paratypes 1 ♂, 2 ♀♀. Bulgaria, Plovdiv District, Hristo Danovo Village, Julen ere Cave, 16.05.1968, leg. P. Beron.

*Trichoniscus bureschi* Verhoeff, 1926. Holotype ♂, Paratypes 1 ♀. Bulgaria, Sofia District, Tzerovo Village, Vodnata peshtera Cave, 05. 06. 1924, leg. I. Buresch.

*Trichoniscus garevi* Andreev 2000. Holotype ♂, Paratypes 3 ♂♂, 5 ♀♀, Bulgaria, Lovetch District, Dragana Village, Sinjoto ezero Cave, 28.08.1985, leg. B. Garev; 4 ♂♂, 7 ♀♀, 21.08.1985 leg. P. Beron, B. Garev; 2 ♂♂, 8 ♀♀, Lovetch District, Bejanovo Village, Altchashkata Cave, 17.07.1985, leg. P. Beron, B. Garev; 2 ♂♂, 1 ♀, Lovetch District, Aglen Village, Tanjova pehtera Cave, 26.07.1985, leg. B. Garev; 3 ♂♂, 5 ♀♀, District Lovetch, Aglen Village, Voditzata Cave. 23.03.1989, leg. B. Garev.

*Trichoniscus raitchevi* Andreev et Tabacaru, 1972. Holotype ♂, Paratypes 1 ♂, 14 ♀♀, Bulgaria Smoljan District, Jagodina Village, Imamova dupka Cave, 27.06.1966, leg. T. Orghidan, A. Burghel- Balacescu.

*Trichoniscus tenebrarum* Verhoeff, 1926. Holotype ♂, Paratypes ♂, 3 ♀♀. Bulgaria, Veliko Tarnovo District, Beljakovetz Village, Golema podlistza Cave, 31.10.1924, leg: I. Buresch.

*Trichoniscus valkanovi* Andreev, 1984. Holotype ♂, Paratypes 2 ♂♂, 3 ♀♀. Bulgaria, Burgas District, Kosti Village, Sarpijska dupka Cave, 07.07.1963, leg. P. Beron; 1 ♂, 2 ♀♀, 26.06.1980, leg. P. Beron, S. Andreev; 23 ♂♂, 16 ♀♀, Georgieva peshtera Cave, 26.06.1980, leg. P. Beron, S. Andreev.

*Tricyphoniscus bureschi* Verhoeff, 1936. Holotype ♂, Paratypes 3 ♀♀. Bulgaria, Lovetch District, Karlukovo Village, Haidushka dupka Cave, 14.11.1926, leg. I. Buresch.

### Family Oniscidae

*Exaloniscus beroni* Taiti et Ferrara, 1988. Holotype ♂, Paratypes 4 ♂♂, 5 ♀♀. North Thailand, Chiang Daw, Tam Chiang Daw Cave, 10.11.1984, leg. P. Beron, S. Andreev.

### Family Phyllosciidae

*Burmoniscus bartolozii* Manicasteri et Taiti, 1988. Holotype ♂, Paratypes approx. 200 exempl. ♂♂, ♀♀, Sri Lanka, Dambula, 25.11.1984, leg. P. Beron, S. Andreev.

*Burmoniscus beroni* Taiti et Manicasteri, 1988. Paratype ♂. Sri Lanka, Kuruvita, 01.12.1984, leg. P. Beron.

*Burmoniscus besucheti* Taiti et Manicasteri, 1988. Paratypes 2 ♂♂, 3 ♀♀, Sri Lanka, Kandi, 26.11.1984, leg. P. Beron, S. Andreev.

*Burmoniscus (?) davisii* Taiti et Manicasteri, 1988. Paratypes 1 ♂, 5 ♀♀, Sri Lanka, Kuruvita, 01.12.1984, leg P. Beron.

*Burmoniscus flavivertex* Kwon et Taiti, 1993. Holotype ♂, Paratypes 1 ♂, 1 ♀, China, Yunnan, Menzi County, litter near the Long Bao Pao Dong Cave, 07.01.1989, leg. P. Beron

*Burmoniscus lobatus* Kwon et Taiti; 1993. Holotype ♂, Paratypes 2 ♂♂, 7 ♀♀, China, Guanxi, Zhuangzi Zizhiqu, Guilin, 06.10.1988, leg P. Beron.

*Burmoniscus longicaudatus* Taiti et Manicasteri, 1988. Paratypes 1 ♀, Sri Lanka, Kandi, 26.11.1984., leg. P. Beron, S. Andreev.

*Burmoniscus micropunctatus* Manicasteri et Taiti, 1988. Paratype ♀, Sri Lanka, Colombo, 02.12.1984, leg. P. Beron.

*Burmoniscus purpura* Kwon et Taiti, 1993. Holotype ♂, Paratypes 3 ♂♂, 11 ♀♀, China, Nanjing, Zijin (= Purple), 09.09.1988, leg. P. Beron.

*Burmoniscus yunnanensis* Kwon et Taiti, 1993. Holotypes ♂, Paratypes 2 ♀♀, China, Yunnan, Menzi County, Chi Be Yi Dong Cave, 12.01.1989, leg. P. Beron.

*Chaetophiloscia hastata* Verhoeff, 1929. Holotype ♂, Paratypes 9 ♀♀, Bulgaria, District Varna, Evksinograd, 12.09.1923, leg. I. Buresch.

*Littorophiloscia amphindica* Taiti et Ferrara, 1986. Paratypes 2 ♂♂, 6 ♀♀. Zanzibar, Pango Managole, Macunduchi Cave, 12.09.1983, leg. P. Beron, V. Beshkov; 1 ♂, 1 ♀. Zanzibar, near Macunduchi Cave, Pango Managole, 12.09.1988, leg. P. Beron, V. Beshkov.

*Littorophiloscia koreana* Ferrara et Taiti, 1986. Holotype ♂, Paratypes 2 ♂♂, 12 ♀♀, Korea, South Pyong Prov., Nampo, 18.08.1982, leg. P. Beron, A. Popov.

*Papuaphiloscia granulata* Kwon et Taiti, 1993. Paratypes 1 ♂, 1 ♀♀, China, Hainan Dao, Qingdao, 200-300 m, 14.10.1988, leg. P. Beron.

*Serendibia denticulata* Manicasteri et Taiti, 1987. Paratypes 2 ♂♂, 3 ♀♀, Sri Lanka, Sabaragamuwa Prov., Kuruvita, 01.12.1984, leg. P. Beron, S. Andreev.

*Tropicana minuta* Manicasteri et Taiti, 1987. Paratypes 2 ♀♀, Sri Lanka, Kuruvita, 01.12.1984, leg. P. Beron.

### Family Trachelipidae

*Lucasioides pedimaculatus* Kwon et Taiti, 1993. Holotype ♂, Paratypes 8 ♂♂, 10 ♀♀, China, Yunnan, Kunming. Xishan park, Longmen (Dragon Gate), 2200-2280 m, 29.12.1988. leg. P. Beron; 3 ♂♂, China, Yunnan, Kunming, Xishan, Dragon Gate, 2000-2400 m, 26.12.1988, leg. P. Beron.

*Lucasioides cavernicolus* Kwon et Taiti, 1993. Paratypes 1 ♂, 1 ♀, China, Yunnan, Chinsui County, Yan Zi Dong (Swallow Cave), 10.01.1989, leg. P. Beron.

*Mongoloniscus nigrogranulatus* Kwon et Taiti, 1993. Paratypes 1 ♂, China, Guanxi Zhuangxi Zizhigu, Guilin, 06.10.1988, leg. P. Beron.

*Trachelipus bulgaricus* Verhoeff, 1926. Holotype ♂, Paratypes 6 ♀♀, Bulgaria, Lovetch District, Karlukovo Village, Haidushka dupka Cave, 09. 09.1923, leg. I. Buresch.

*Trachelipus mirmicidarum* Verhoeff, 1936. Holotype ♂, Paratypes 3 ♀♀, Bulgaria, Kyustendil District, Zemen Village, loc. Skakavitza, 12.05.1935, leg. N. Atanassov.

#### Family Platyarthridae

*Platyarthrus atanassovi* Verhoeff, 1936. Holotype ♂, Paratypes 13 ♂♂, 11 ♀♀. Bulgaria, Plevan District, Dermantzi Village, 19.10.1933, leg. N. Atanassov.

*Platyarthrus messorum* Verhoeff, 1936. Holotype ♂, Paratypes 2 ♂♂, 6 ♀♀, Bulgaria, Kyustendil District, Zemen Village, loc. Skakavitza, 12. 05. 1925, leg. N. Atanassov.

#### Family Scleropactidae

*Paratoradja beroni* Ferrara, Meli et Taiti, 1995. Holotype ♂, Paratypes 3 ♀♀, Sri Lanka, Kuruwita, 01.12.1984, leg. P. Beron.

#### Family Armadillidiidae

*Armadillidium elisii* Verhoeff, 1936. Holotype ♂, Paratypes 1 ♀, Bulgaria, Drjanovski manastir, peshterata, 27.07.1928, leg. F. Ueno.

*Armadillidium mohamedanicum* Verhoeff, 1929. Holotype ♂, Paratypes 2 ♂♂, 1 ♀, European Turkey, Galipoli, Kuru Dagh (now Gelibolu), 02.03.1913. leg. l. Buresch.

*Armadillidium rhodopinum*, Verhoeff, 1936. Holotype ♂, Paratypes 3 ♀♀, Bulgaria, Peshtera, Radilovo Village, 16.06.1933, leg. N. Atanassov.

*Neodillo simplex* Dalens, 1990 (n.g., n.sp.). Holotype ♂, Papouasie - Nouvelle Guinée, Western Province, Selminum tem Cave, 30.07.1975, leg. P. Beron.

*Sinodillo ferrarai* Kwon et Taiti, 1993 (n. g., n. sp.). Paratype ♂, China, Yunnan Chinshui County, Yan Dong Cave, 12.01.1989, leg. P. Beron.

*Sinodillo schmalfussi* Kwon et Taiti, 1993. Holotype ♂, Paratypes 2 ♂♂, 2 ♀♀, China, Yunnan, Menzi County, under stones near village on the plateau, 1600-1800 m, 31.01.1989, leg. P. Beron.

*Sinodillo troglophilus* Kwon et Taiti 1993. Holotype ♂, Paratypes 6 ♀♀, China, Yunnan, Chinshui County, Yan Dong Cave, 12.01.1989, leg. P. Beron.

*Troglodillo rotundatus* Kwon et Taiti, 1993. Holotype ♂, China, Guanxi, Zhuangxi Zizhiq, Guilin, 06.10.1988, leg. P. Beron.

#### Family Eubelidae

*Aethiopopactes trilineatus* Ferrara et Taiti, 1985. Holotype ♂, 2 ♀♀, Mozambique, Cabo Delgado, 10 km from Mekufi, 24. 07. 1983, leg. P. Beron, V. Beshkov.

*Microcercus beroni* Ferrara et Taiti, 1985. Holotype ♂, Paratypes 6 ♂♂, 12 ♀♀, Nigeria, Plateau State, Kabwir, 20. 09. 1978, leg. P. Beron.

## SUBORDER ANTHURIDEA

### Family Anthuridae

*Cyathura beroni* Andreev, 1982. Holotype ♂, Paratypes 1 ♂, 1 ♀, Papua New Guinea, Cave Selminum Tem (Alt. 2400 m). Western prov. 30.08.1975, leg. P. Beron.; 1 ♂, 3 ♀♀, Chimbu prov., Village Goglme, Ogon II Cave, 30.10.1975, leg. P. Beron; 1 ♀, Emuk Range, Warfertem Cave, 17.02.1978, Leg. D.Z.

*Cyathura chapmani* Andreev, 1982. Holotype ♂, Paratypes 2 ♂♂, 6 ♀♀, Sarawak, E. Malaysia. Gua Air Jernih (Clearwater Cave), Gunong Mulu National park, 4<sup>th</sup> Division, 09.05.1978, leg. Ph. Chapman.

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# **Tunycen материал от разред Isopoda (Crustacea: Oniscidea, Anthuridea) в колекциите на Националния природонаучен музей в София**

Стоице АНДРЕЕВ, Фани БОЗАРОВА

(Резюме)

Работата съдържа списък на типусите на 57 вида изоподи, които се съхраняват в колекциите на НПМ в София. От тях 55 вида са представители на сухоземните изоподи (подразред Oniscidea) и два вида от подразред Anthuridea. С холотипуси са представени 46 вида, а само с паратипуси - 11. Материалът произхожда от България, Гърция, Сардиния, Турция, Китай, Корея, Шри Ланка, Тайланд, Малайзия (Саравак). Нова Гвинея, Занзибар, Нигерия и Мозамбик. Събиран е главно от П. Берон (39 вида), а също и от Ив. Буреш, Н. Атанасов, Ст. Андреев и др. Видовете (някои от които представители на нови родове) са описани от Ст. Андреев, I. Tabacaru, K. Verhoeff, S. Taiti, F. Ferrara, F.C. Meli, K. Manicasteri, Kwon Do Heon и H. Dalens. Прибеждам се данни за находищата, датите и за броя на съхраняваните в НПМ екземпляри.